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EXAMINER

FLEISCHER, MARK A

ART UNIT	PAPER NUMBER
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3624

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/538,225	Applicant(s) NICHOLLS ET AL.	
	Examiner MARK A. FLEISCHER	Art Unit 3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 - 10, 12 - 20 and 22 - 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 - 10, 12 - 20 and 22 - 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 0228447.9.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. This final action is in reply to the amendments filed on 27 October 2010.
2. Claims 2 – 10 and 12 – 20 have been amended.
3. Claims 22 – 24 have been added.
4. Claims 1, 11 and 21 have been cancelled.
5. Claims 2 – 10, 12 – 20 and 22 - 24 are currently pending and have been examined.

Response to Amendments

6. The drawings filed 27 October 2010 are acceptable and the objection to them in the previous Office action is withdrawn.
7. The requirement for a new oath or declaration is withdrawn in light of Applicant's ADS.
8. The objection to claim 10 is withdrawn in light of Applicant's amendments.
9. The rejection of claims 3, 4, 9 11, 14 and 18 under 35 U.S.C. §112, second paragraph are withdrawn in light of Applicant's amendments.
10. The rejection of claims 12 – 19 under 35 U.S.C. §101 are withdrawn in light of Applicant's amendments. Examiner maintains this rejection for claim 20 as noted below.

Response to Arguments

11. Applicant's arguments received on 27 October 2010 have been fully considered but they are not persuasive. Referring to the previous Office action, Examiner has cited relevant portions of the references as a means to illustrate the systems as taught by the prior art. As a means of providing further clarification as to what is taught by the references used in the first Office action, Examiner has expanded the teachings for comprehensibility while maintaining the same grounds of rejection of the claims, except as noted above in the section labeled "Status of Claims." This

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information is intended to assist in illuminating the teachings of the references while providing evidence that establishes further support for the rejections of the claims.

12. Examiner appreciates the phone interview with Applicant's representatives and with the inventor.

While the discussion was enlightening and clarifying, the amendments to the claims do not sufficiently depart from the prior art in a way that distinguishes the instant claims from the prior art. Golightly, for example, clearly discusses real-time data and event-driven data as shown below, and further discusses metrics, models, objectives, goals and so forth. The new claims 22 – 24 are very similar in spirit to the prior independent claims 1, 11 and 21 which have been cancelled. Applicant claims that the main distinguishing feature of these new claims compared to the prior art is that Golightly "does not disclose a computer system, comprising: 'at least one computer configured to: from one or more external sources, receive a stream of event data for at least one of the metrics, wherein the event data is transmitted to and received by the at least one computer independent of a request from the computer, in response to each received event data, calculate with the computer an actual value for at least one metric based at least in part on the event data, in response to each received event data, automatically calculate with the computer an expected value for the at least one metric, compare the expected value with the actual value, and determine whether to generate an alert or action based on the comparison of the expected value and the actual value.'" (see Remarks, p. 10). The rejection of these limitations by Golightly is discussed in the rejections below. Regarding the automated nature of the calculating, which Applicant argues Golightly is silent on, Golightly [0046] states "If a value or change in value in an element of the input information matches one or more criteria, the system may retrieve the element, and update one or more of the dynamic models, and/or the optimizing system, in response to the detected changes, and in accordance with the retrieved element." (emphasis added). See also [0054]: "models may be updated in accordance with the received information." Golightly [0136] further describes performance estimates. The emphasized text clearly establishes an automated response, hence the reference to 'dynamic model' which is updated in response to detected changes, hence without operator intervention or action.

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13. It is worth pointing out new prior art not relied upon below, particularly Macbeath and Battas and Zargham which provide many similar teachings as the cited prior art and the instant application.

Claim Objections

14. Claim 14 is objected to because of the following informalities: The claim recites "...includes forecasts of performance and ranges performance.", and apparently should read "...ranges of performance ..." Appropriate correction is required.

Claim Rejections - 35 USC § 112

15. The following is a quotation of the second paragraph of 35 U.S.C. §112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claim 23 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- **Claim 23:** The claim recites "storing target for current and future metrics" which is confusing as this could mean storing goals (targets) for metrics to be defined in the future which does not make sense. This confusion is because the preceding limitation is devoted to "defining metrics" and using the term 'metric' to denote both a type of value, and the value itself. How can targets for future metrics be known before the metric is defined? It appears to mean the storing of target for current and future values of the metrics and Examiner interprets it in this manner. Applicant should provide clarification and make appropriate modifications.

Claim Rejections - 35 USC § 101

17. 35 U.S.C. §101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

18. Claim 20 is rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Based on Supreme Court precedent, and recent Federal Circuit decisions, the Office's guidance to examiners is that a §101 process must (1) be tied to a particular machine or apparatus or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780,787-88 (1876). An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps. Thus, to qualify as a §101 statutory process, the claim should positively recite the machine or apparatus (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state. Examiner notes that the claims recite elements such as user interfaces for displaying data, but these could be comprised of posters or other non-machine means, thus they are insufficient to substantively tie them to a machine.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 2 – 7, 9, 10, 12, 14 – 17 and 19 – 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Golightly, et al. (US PgPub 20030046130 A1) in view of Sanders, et al. (US 6574605 B1).

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Claim 2:

Golightly teaches the following limitations as shown.

- *the at least one computer is further configured to, in response to each received event data, calculate a predicted value of the at least one metric based at least in part on the historical data and the received event data* (Golightly in at least [0025-6] refers to use of historical data and in [0158] refers to historical, current and/or projected and “possibly synthesized information”. In [0159] Golightly also refers to models and parameters. Golightly [0050] states “This approach may be used to, in effect, optimize the enterprise in a substantially continuous or on-going manner. In another use of this approach, the optimization process may be performed iteratively until the solutions converge, i.e., until, in effect, a solution equilibrium is reached, or until an specified time period has elapsed.” (emphasis added)).

Claim 3:

Golightly teaches the following limitations as shown.

- *said at least one computer is arranged to store one or more rules for operating on at least one of the received event data, the actual value, the expected value, and the predicted value* (Golightly [0106] states “...these external events or input [] may be provided or received and result in corresponding updates to the dynamic models [].” (emphasis added). Golightly [0040] states “The plurality of models may include any of a variety of model types, such as, for example, a neural network, a support vector machine, an analytic model, a statistical model, a regression model, an empirical model, a first principals model, a non-linear model, a rule-based model, and an expert system model, among others. Some models may also be combinations of any of the above model types.” (emphasis added) where ‘statistical’ and ‘regression’ corresponds to expected value and predicted value. See also Golightly [0003] for further discussion on predictive models and modeling.).

It bears emphasis that while Golightly does not specifically teach using an expected value, *per se*, statistical and regression models, which Golightly does teach, typically use expectation values based on historical data and are inherent in these types of models. In any event, Sanders, in an analogous art

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does make explicit reference to expected values as shown. Sanders [4,37] refers to using expected values for prediction and analytical purposes and states "For example, the system captures and inventories data regarding the mailing of the billing statements and analyzes and predicts the volume of expected inbound phone calls, and on what day and at what time." (emphasis added). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly and Sanders as both pertain to controlling and managing an enterprise using computer technology and networking and modeling means is a well-known technique that has been widely adopted and facilitates computation of analytics and its effects and benefits would therefore have been predictable.

Claim 4:

Golightly teaches the following limitations as shown.

- *the at least one computer is arranged to store one or more target values and to compare at least one of the received event data and the predicted values with the one or more target values* (Golightly [0004] refers to predictive models and parameter values the results of which are compared to the most beneficial outcome or result. See also Golightly [0136] regarding real-time data and goals and performance estimates and feedback control.).

Claim 5:

Golightly [0149] teaches a re-planning cycle triggered by deviations from an existing plan but does not specifically teach the following limitation, but Sanders, in an analogous art, does as shown.

- *said at least one computer is arranged to store one or more alert definitions causing a signal to be sent when a said rule is met* (Sanders [2,40] *inter alia* describes and/or discloses use of alerts triggering dynamic resource allocations in response to real-time event monitoring.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly and Sanders as both pertain to controlling and managing an enterprise using computer technology and networking and the use of triggered alerts when a specified criterion is met is a well-known technique that has been widely adopted and facilitates real-time control of a complex system and its effects would therefore have been predictable.

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Claims 6 and 7:

Golightly does not specifically teach the following limitations, but Sanders, in an analogous art, does as shown.

- *the at least one computer is arranged to send a message to a terminal selected based on the alert* (Sanders [20,4] describes and/or discloses messages sent to specified systems. Sanders [16,51] also describes an alert message sent to a specified user.)
- *the message is an email message* (Sanders [16,59] describes an email option for communication. See also Sanders [11,15] regarding the workload manager being triggered and Sanders [12,17] where the workload manager notifies by a message.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly and Sanders as both pertain to controlling and managing an enterprise using computer technology and networking and the use of triggered alerts and email messaging when a specified criterion is met is a well-known technique that has been widely adopted and facilitates real-time control of a complex system and its effects would therefore have been predictable.

Claim 9:

Golightly does not specifically teach the following limitations, but Sanders, in an analogous art, does as shown.

- *means for generating a real-time-updated graphical user interface to display data selected from at least one of the received event data, the actual value, the expected value, the predicted value, and an alert* (Sanders [17,54] states "With regard to the monitor display [], it is a set of monitor screens that provide graphical user interface for the ECC system user or administrator to perform on-line monitoring activities.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly and Sanders as both pertain to controlling and managing an enterprise using computer technology and networking and the use of graphical user interfaces is a well known technique for monitoring the status of a complex system such as an enterprise and has been

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widely adopted and facilitates real-time control of a complex system and its effects would therefore have been predictable.

Claim 10:

Golightly teaches the following limitations as shown.

- *wherein said computer readable medium comprises instructions which, when executed, cause the at least one computer to calculate a value of a metric based at least in part on the received event data.* (Golightly [0037] refers to use of empirical data from which metrics are calculated. Golightly [0106] states "...these external events or input [] may be provided or received and result in corresponding updates to the dynamic models []." (emphasis added). Golightly [0040] states "The plurality of models may include any of a variety of model types, such as, for example, a neural network, a support vector machine, an analytic model, a statistical model, a regression model, an empirical model, a first principals model, a non-linear model, a rule-based model, and an expert system model, among others. Some models may also be combinations of any of the above model types." (emphasis added) where 'statistical' and 'regression' corresponds to expected value and predicted value. See also Golightly [0003] for further discussion on predictive models and modeling.).

Claim 12:

Golightly teaches the following limitations as shown.

wherein the metrics are defined by an operator of the computer system (Golightly [0031] refers to a "mix of variables under the decision-maker's control (i.e., decision variables)". Golightly [0040] refers to "an expert system model" and in [0041] teaches use of an "optimizing system" which inherently incorporates a metric as an objective function.).

Claim 14:

Golightly teaches the following limitations as shown.

- *wherein projecting likelihoods of targets being achieved includes forecasts of performance and ranges performance* (Golightly [0151] refers to forecasting and financial projections based on performance measurements).

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Claim 15:

Golightly teaches the following limitations as shown.

- *detecting relationships between different metrics* (Golightly in at least [0018] describes and/or discloses mathematical relationships based on statistical modeling and regression.);
- *calculating with the computer system optimal values for goals which have a relationship with one or more metrics* (see Golightly [0018];
- *developing of scenarios to simulate performance under certain circumstances* (Golightly [0131] states “One embodiment of the REO system includes elements of advanced planning and scheduling for the enterprise and additional functionality that may include simulation for predictive analysis and scenario evaluation and optimization. [...] may help manufacturers or other enterprise managers understand, control, and optimize their processes. For example, a multivariable predictive controller and integrated process optimizer may be useable for controlling and optimizing single and connected processes.” (emphasis added)).

Claim 16:

Golightly teaches the following limitations as shown.

- *recalculating forecast performance* (Golightly [0151] refers to dynamic models that are updated to produce real-time cost estimates.);
- *recalculating optimal goal values* (Golightly [0104] states “In prior art systems, the models that have been created using goals and objectives [] and the constraints [] have generally been static or semi-static models, i.e., models that are updated very infrequently such as once every six months, once every year, etc. According to one embodiment of the invention, the goals and objectives [] and the constraints [] are used to create dynamic models [] referred to as dynamic cost models [].” (emphasis added) where goals and objectives corresponds to optimal goal values.. See also [0105].);
- *reporting the comparison of the expected value and the actual value* (Golightly [0049] states “Thus, the information received and used by various components of the REO system may include any type of information, past, present, or projected (i.e., predicted), which may be related to

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enterprise operations and/or performance. Golightly [0018] *inter alia* refers to empirical statistical models, “so that the best possible prediction results may be achieved...” where such inherently involves comparison of optimal values. Golightly [0046] further states “the system may be operable to monitor input information from the one or more information sources and detect changes in data/information from the plurality of information sources. If a value or change in value in an element of the input information matches one or more criteria, the system may retrieve the element, and update one or more of the dynamic models, and/or the optimizing system, in response to the detected changes, and in accordance with the retrieved element.”, hence reads on detecting data changes and alerting appropriate personnel of such changes.)

Golightly does not specifically teach the following limitations, but Sanders, in an analogous art does as shown.

- *notifying an operator of the computer system that the alert or action has been generated* (Sanders [20,4] describes and/or discloses messages sent to specified systems. Sanders [16,51] also describes an alert message sent to a specified user.); *and*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly and Sanders as both pertain to controlling and managing an enterprise using computer technology and networking and the use of triggered alerts when a specified criterion is met is a well-known technique that has been widely adopted and facilitates real-time control of a complex system and its effects would therefore have been predictable.

Claim 17:

Golightly teaches the following limitations as shown.

- *notifying one or more users of the computer system of the alert or action; storing status information to reflect the priority of the alert or action; storing information related to the alert or action taken; storing status information after the action has been taken; and correlating previous actions taken with performance and achievement of goals* (Golightly [0049] states “Information related to equipment may include information related to one or more of equipment performance, equipment maintenance, and equipment status. Thus, the information received and used by

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various components of the REO system may include any type of information, past, present, or projected (i.e., predicted), which may be related to enterprise operations and/or performance." (emphasis added) Golightly [0134-5] refers to measurable performance indicators which inherently are communicated to a user. It further describes intelligence gathering and situation analysis, strategic planning, etc).

Claim 19:

Golightly teaches the following limitations as shown.

- *automatically calculating a previously defined dimension of the metric* (see Golightly [0032] regarding action variables previously defined.);
- *automatically generating additional individual level metrics, without operator involvement* (Golightly [0049] "Information related to sales may include one or more of current sales and projected sales. Information related to economic factors may include one or more of current and/or projected stock prices, current and/or projected debt rating, and current and/or projected interest rates, among others." (emphasis added) where the emphasized text corresponds to level metrics.); *automatically interpreting the new metric over time; and automatically calculating an expected time of arrival* (Golightly [abstract] teaches an automated process and real-time control of an enterprise. Golightly [0054] further states "In another embodiment, one or more models may be added, removed, or replaced, depending on the information received. In other embodiments, other components of the REO system may be updated, including, for example, the information or data sources, the optimizers, and/or the constraints and/or objectives, among others. In other words, any component or aspect of the REO system may be updated as desired. As mentioned above, in some embodiments, such updates may be performed asynchronously." (emphasis added). See also [0088], [0116] and [0132] for the automatic execution of processes and automatic process control and decision-making environment.)

Claim 20:

Golightly teaches the following limitations as shown.

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- *creating user interfaces for displaying data, including one or more of metrics, goals, forecast performance, alerts, annotations, comments and threads of discussion using graphical and non-graphical displays* (Golightly [0146] *inter alia* describes and/or discloses user interfaces);
- *publishing the user interfaces across an organization, in different formats* (see previous limitation); *and*
- *scheduling automatic publishing and distribution based on specified time intervals or defined business rules and alerts* (Golightly [0042] describes and/or discloses a system for distribution of models which include information sources. See also Golightly [0084]).

Claim 22:

Golightly teaches the following limitations as shown.

- *a memory storing historical data comprising values for each of a plurality of metrics at a plurality of points in time; and at least one computer configured to* (Golightly in at least [0025-6] refers to use of historical data and in [0158] refers to historical, current and/or projected and “possibly synthesized information”. In [0159] Golightly also refers to models and parameters.):
- *from one or more external sources, receive a stream of event data for at least one of the metrics, wherein the event data is transmitted to and received by the at least one computer independent of a request from the computer* (Golightly [0077] refers real-time data. Golightly [0053] also refers to external information sources.),
- *in response to each received event data, calculate with the computer an actual value for at least one metric based at least in part on the event data* (Golightly [0077] states “The dynamic model feedback 406 allows real-time data (e.g., availability of equipment) to be used as input to generate improved versions of optimized decisions and/or actions on an event-driven basis.” (emphasis added), and in [0134] states “A command and control system approach may be operable to synchronize operations, facilitate collaboration across the enterprise, provide contextual information with consistency in objectives and constraints, and provide meaningful and measurable performance indicators.” (emphasis added) where the emphasized text variously refers to event-data and a metric based on event data.),

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- *in response to each received event data, automatically calculate with the computer an expected value for the at least one metric* (Golightly [0046] states “If a value or change in value in an element of the input information matches one or more criteria, the system may retrieve the element, and update one or more of the dynamic models, and/or the optimizing system, in response to the detected changes, and in accordance with the retrieved element.” (emphasis added). See also [0054]: “models may be updated in accordance with the received information.” Golightly [0136] further describes performance estimates. Golightly [0003] describes and/or discloses “predictive models” that use input data or parameters and where a predicted value corresponds to using an expected value.),
- *compare the expected value with the actual value* (Golightly [0004] describes and/or discloses how “[t]he results of each test may be compared...”, Golightly [0025] describes and/or discloses how a model output may be compared to ... desired outputs and Golightly [0136] further describes performance estimates and states “In this feedback control system, the abstraction and translation of real-time data into contextual information is critical for achieving management goals. It provides a mechanism to reevaluate plans based on significant deviations between assumptions and real-time performance estimates that are consistent with strategic objectives.” (emphasis added)), *and*
- *determine whether to generate an alert or action based on the comparison of the expected value and the actual value* (Golightly [0029] regarding use of predictive models used by a decision-maker to select an action. Golightly [0077] states “The dynamic model feedback 406 allows real-time data (e.g., availability of equipment) to be used as input to generate improved versions of optimized decisions and/or actions on an event-driven basis.” (emphasis added). Golightly [0004] further states “For example, the predictive models mentioned above may be used in an optimization process to test or characterize the behavior of the system or process under a wide variety of parameter values. The results of each test may be compared, and the parameter set or sets corresponding to the most beneficial outcomes or results may be selected for

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implementation in the actual system or process.” (emphasis added) where predictive models typically are based on expected values. See also Golightly [0026].)

Golightly does not specifically teach using a memory or a database *per se*, for storage of historical data, but Sanders, in an analogous art, does. Sanders [4,55] states “...types of execution results have long-range performance or management data that are collected and put into a database.” (emphasis added). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly and Sanders as both pertain to controlling and managing an enterprise using computer technology and networking and utilizing database means is a well-known technique that has been widely adopted and facilitates computation of analytics and its effects would therefore have been predictable.

Claim 23:

Golightly teaches the following limitations as shown.

- *defining metrics which describe performance of the organization* (Golightly [0032] refers to external and decision variables and action variables. See also Golightly [0150] regarding specifying metrics.);
- *storing targets for current and future metrics* (Golightly [0127] refers to goals and targets.);
- *projecting likelihoods of targets being achieved* (Golightly [0032] states “As used herein, “action variables” are those variables that propose or suggest a set of actions for an input set of decision and external variables. In other words, the action variables may comprise predictive metrics for a behavior. For example, in the optimization of a product marketing campaign, the action variables may include the probability of a customer's response to an offer. In a re-pricing campaign, the action variables may include the likelihood of a customer maintaining a service after re-pricing the service. In the optimization of a credit card offer, the action variables may include predictions of balance, attrition, charge-off, purchases, payments, and other suitable behaviors for the customer of a credit card issuer.” (emphasis added) where the emphasized text corresponds to projecting likelihoods as claimed.);

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- *from one or more external sources, receiving a stream of data related to the event for at least one of the metrics, wherein the event data is transmitted to the at least one computer independent of a request from the computer* (Golightly [0077] refers real-time data. Golightly [0053] also refers to external information sources.);
- *in response to each received event data, calculating with the computer an actual value for at least one metric based at least in part on the event data* (Golightly [0077] states “The dynamic model feedback 406 allows real-time data (e.g., availability of equipment) to be used as input to generate improved versions of optimized decisions and/or actions on an event-driven basis.”, and in [0134] states “A command and control system approach may be operable to synchronize operations, facilitate collaboration across the enterprise, provide contextual information with consistency in objectives and constraints, and provide meaningful and measurable performance indicators.” (emphasis added) where the emphasized text variously refers to event-data and a metric based on event data.);
- *in response to each received event data, automatically calculating with the computer an expected value for the at least one metric* (Golightly [0046] states “If a value or change in value in an element of the input information matches one or more criteria, the system may retrieve the element, and update one or more of the dynamic models, and/or the optimizing system, in response to the detected changes, and in accordance with the retrieved element.” (emphasis added). See also [0054]: “models may be updated in accordance with the received information.” Golightly [0136] further describes performance estimates.);
- *comparing the expected value with the actual value* (Golightly [0136] further describes performance estimates and states “In this feedback control system, the abstraction and translation of real-time data into contextual information is critical for achieving management goals. It provides a mechanism to reevaluate plans based on significant deviations between assumptions and real-time performance estimates that are consistent with strategic objectives.” (emphasis added)); *and*

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- *determining whether to generate an alert or action based on the comparison of the expected value and the actual value* (Golightly [0029] regarding use of predictive models used by a decision-maker to select an action. Golightly [0077] states “The dynamic model feedback 406 allows real-time data (e.g., availability of equipment) to be used as input to generate improved versions of optimized decisions and/or actions on an event-driven basis.” (emphasis added). Golightly [0004] further states “For example, the predictive models mentioned above may be used in an optimization process to test or characterize the behavior of the system or process under a wide variety of parameter values. The results of each test may be compared, and the parameter set or sets corresponding to the most beneficial outcomes or results may be selected for implementation in the actual system or process.” (emphasis added) where predictive models typically are based on expected values. See also Golightly [0026].).

Golightly does not specifically teach *storing* of target values *per se* (as opposed to gathering historical data as in Golightly [0026]), but Sanders, in an analogous art, does. Sanders [4,55] states “...types of execution results have long-range performance or management data that are collected and put into a database.” (emphasis added). Sanders [3,1] also makes reference to the storage of historical data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly and Sanders as both pertain to controlling and managing an enterprise using computer technology and networking and utilizing database means is a well-known technique that has been widely adopted and facilitates computation of analytics and its effects would therefore have been predictable.

Claim 24:

Golightly teaches the following limitations as shown.

- *a memory storing historical business data comprising values of each of a plurality of metrics at a plurality of points in time; and at least one computer configured to* (Golightly in at least [0025-6] refers to use of historical data and in [0158] refers to historical, current and/or projected and “possibly synthesized information”. In [0159] Golightly also refers to models and parameters.):

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- *from one or more external sources, receive a stream of event data for at least one of the metrics, wherein the event data is transmitted to the at least one computer independent of a request from the computer* (Golightly [0077] refers real-time data. Golightly [0053] also refers to external information sources.),
- *in response to each received event data, calculate with the computer an actual value for at least one metric based at least in part on the event data* (Golightly [0077] states “The dynamic model feedback 406 allows real-time data (e.g., availability of equipment) to be used as input to generate improved versions of optimized decisions and/or actions on an event-driven basis.”, and in [0134] states “A command and control system approach may be operable to synchronize operations, facilitate collaboration across the enterprise, provide contextual information with consistency in objectives and constraints, and provide meaningful and measurable performance indicators.” (emphasis added) where the emphasized text variously refers to event-data and a metric based on event data.),
- *in response to each received event data, calculate with the computer an expected value for the at least one metric based on the historical business data* (Golightly [0026] states “[H]istorical data is gathered, e.g., information generated by the system [...] the historical data is preprocessed to put the data into a form useful for creating and/or training a predictive model.” (emphasis added) and in Golightly [0046] states “If a value or change in value in an element of the input information matches one or more criteria, the system may retrieve the element, and update one or more of the dynamic models, and/or the optimizing system, in response to the detected changes, and in accordance with the retrieved element.” (emphasis added). See also [0054]: “models may be updated in accordance with the received information.” Golightly [0136] further describes performance estimates. Golightly [0003] describes and/or discloses “predictive models” that use input data or parameters and where a predicted value corresponds to using an expected value.).

Golightly does not specifically teach using a memory or a database *per se*, for storage of historical data, but Sanders, in an analogous art, does. Sanders [4,55] states “...types of execution results have long-range performance or management data that are collected and put into a database.” (emphasis added).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly and Sanders as both pertain to controlling and managing an enterprise using computer technology and networking and utilizing database means is a well-known technique that has been widely adopted and facilitates computation of analytics and its effects would therefore have been predictable.

21. Claims 8 and 18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Golightly, et al. (US PgPub 20030046130 A1) in view of Sanders, et al. (US 6574605 B1) and further in view of Davies, et al. (US PgPub 20030033191 A1).

Claim 8:

Neither Golightly nor Sanders teaches the following limitations, but Davies, in an analogous art, does as shown.

- *configured to open a discussion thread under predefined conditions, and involving a predefined group* (Davies [0159] states “A user can drill down to obtain more detailed information for each Phase by clicking on the Phase traffic light indicator. A number of common functions can be provided in a Program Workspace, such as Shared Documents, Discussion Groups/Threads, etc. A Participants screen lists the members of the Program Team. Every Program has a team that consists of one or more coordinators, members, or guests. The Workspace Role column indicates which users or groups are coordinators, member or guests in the context of the Program. The Workspace Role defines what users can see and do in that particular Program Workspace.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly and Sanders with the teaching of Davies because incorporating the technology for establishing discussion threads and groups that can take advantage of modern inter-networked collaboration technologies enhances the capability of utilizing real-time information and the accuracy of forecasts. The added capabilities of organization-wide communications taught by Davies would therefore have added an improved capability to the teachings of Golightly and

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Sanders and the improvement in the collaboration potential would have been obvious and predictable to one of ordinary skill in the art at the time of the invention.

Claim 18:

Golightly teaches the following limitations as shown.

- *wherein the publishing includes one or more of storing annotations, comments and threads of discussion; linking annotations, comments and threads of discussion to metrics, targets and forecasts; publishing metrics, goals and forecast performance across the organization; publishing annotations, comments and threads of discussion across the organization* (see the rejection of claim 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly and Sanders with the teaching of Davies because incorporating the technology for establishing discussion threads and groups that can take advantage of modern inter-networked collaboration technologies enhances the capability of utilizing real-time information and the accuracy of forecasts. The added capabilities of organization-wide communications as taught by Davies would therefore have added an improved capability to the teachings of Golightly and Sanders and the improvement in the collaboration potential would have been obvious and predictable to one of ordinary skill in the art at the time of the invention.

22. Claim 13 is rejected under 35 U.S.C. §103(a) as being unpatentable over Golightly, et al. (US PgPub 20030046130 A1) in view of Sanders, et al. (US 6574605 B1) and further in view of Buchan, et al. (US 7584165 B2).

Claim 13:

Golightly teaches the following limitations as shown.

- *the targets include: goals defined by an expert operator of the computer system to establish standard goals for the organization; and, goals defined by a business operator.* (Golightly [0006] states "This knowledge [] may then be analyzed in the light of various goals and objectives [] and used to generate decisions [] related to the operation of the system or process [] subject to

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various goals and objectives [] specified by the analyst." (emphasis added) where an 'analyst' corresponds to an expert.); *and*

Neither Golightly nor Sanders specifically teaches *definition of goals by a business operator of the computer system to establish targets for an organization, corporation, team or group, business process or personal use.*, but Buchan, in an analogous art, does. Buchan [abstract] *inter alia* teach "management performance models of team performance" which involves the establishment and definition of goals and targets. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Golightly, Sanders and Buchan as they pertain to assessments of business performance and that the inclusion of performance metrics of distinct teams or groups of entities for which performance is measure provides an obvious variation of the teachings of Golightly and Sanders and that such modification would have been obvious to one of ordinary skill in the art and its benefits would have been predictable.

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Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Mark A. Fleischer** whose telephone number is **571.270.3925**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's acting supervisor, **Lynda Jasmin** whose telephone number is **571.272.6782** may be contacted.

The prior art made of record and not relied upon that is considered pertinent to applicant's disclosure are:

- Macbeath, et al. (US PgPub 20040111346 A1) teaches methods for automating financial transactions;
- Battas et al. (US 6757689 B2) teaches methods for enabling a zero latency enterprise
- Zargham (US PgPub 20020165903 A1) teaches methods to obtain a zero latency enterprise as does
- Zargham (US PgPub 20020107957 A1) which teaches a framework, architecture, method and system for reducing latency of business operations of an enterprise,

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- Discenzo (US 6847854 B2) teaches a method for dynamic, multi-objective optimization of machine selection, integration and utilization.
- ISA Draft –dS95.01-1999 (*Enterprise - Control System Integration Part 1: Models and Terminology*) and pertains to optimization methods in industrial settings.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to **571-273-8300**.

Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window:**

Randolph Building

401 Dulany Street

Alexandria, VA 22314.

Mark A. Fleischer
/Mark A Fleischer/
14 January 2011

/Romain Jeanty/
Primary Examiner, Art Unit 3624